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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/777,627

02/13/2004

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FABBRI4

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EXAMINER

BERTHEAUD, PETER JOHN

ART UNIT

PAPER NUMBER

3746

MAIL DATE

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/777,627	<b>Applicant(s)</b> FABBRI, FABRIZIO	
	<b>Examiner</b> PETER J. BERTHEAUD	<b>Art Unit</b> 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-6 and 9-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-6 and 9-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 February 2008 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This Office action is in response to amendments filed 12/22/2008. It should be noted that claims 2-6 and 9-13 have been amended, claims 1, 7, and 8 have been cancelled, and claims 14 and 15 are new.

### ***Drawings***

2. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the valve seats must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure

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is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

4. Claims 14 and 15 are objected to because of the following informalities: in lines 1-3 of both claims it is stated, "A high pressure plunger pump comprising at least two in-line cylinders, each cylinders being provided with a plunger, is connected via a conduit and valves to an intake manifold and to a delivery manifold". The plurality of these nouns needs to be consistent, for example: "A high pressure plunger pump comprising at least two in-line cylinders, each cylinder being provided with a plunger connected via conduits and valves to an intake manifold and to a delivery manifold". The Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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6. Claims 2-6 and 9-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claims 14 and 15, lines 3-4, it is stated, "said cylinders being provided within a single block formed as a unit together with the seats of the intake valves". However, the valve seats can be interpreted as the portions of 77 and 83 that element 75 (and the like on the discharge valve) rest upon when not open. These are clearly not part of the single block, contradicting the claims. Furthermore, there is nothing in the specification or drawings that directs the examiner to the "valve seats" that would be unitary with the block.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2-4, 9-11, and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elliott 4,618,316 in view of Redman 3,427,988.

Elliott discloses a high pressure plunger pump comprising a cylinder, the cylinder 30 being provided with a plunger 16, is connected via a conduit and valves 36, 52 to an intake manifold 22 and to a delivery manifold 26, said cylinders being provided within a single block 20 formed as a unit together with the seat 34 of the intake valve 36, with said conduits and with said manifolds, wherein the intake valve is retained in position by a deformable element 44; and wherein the cylinder 30 communicates with the

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compartment containing the delivery valve via two parallel conduits (see 58, Fig. 3, and col. 4, lines 32-36). However, Elliot does not teach the following claimed limitations taught by Redman.

Redman teaches high pressure plunger pump comprising at least two in-line cylinders 19 (see col. 1, lines 56-58), each cylinder 19 being provided with a plunger 12, are connected via a conduit and valve 30 to an intake manifold (see 22) and to a delivery manifold (see 23), wherein the intake manifold (22) is positioned in front of the line of cylinders (19) and is in direct communication with the cylinders via a conduit connected to a dead compartment (see conduit inside elements 26 and 27) provided as an extension of the respective cylinder 19 and in which the intake valve 30 is located, retained in position by a deformable element 32, wherein the intake manifold and the delivery manifold are connected by at least a delivery conduit 20 having diameter smaller than the diameter of the cylinder 19. Redman further discloses that the intake manifold (see 22) has its axis coplanar with the cylinder 19 axes. Redman also discloses that the compartment containing the intake valve 30 is cylindrical and coaxial with the respective cylinder 19 (see configuration in Fig. 1).

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to have modified the assembly of Elliott by placing the inlet manifold in front of a line of cylinders, as taught by Redman, in order to have the horizontal passage serve as both a cylinder bore as well a suction passage and to allow the inlet and discharge manifolds to receive and distribute fluid from much different locations on the

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pump assembly. These modifications allow for more versatility when using the pump in various applications.

9. Claims 5, 6, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elliott 4,618,316 in view of Redman 3,427,988, and in further view of Hagler 3,306,214.

Elliott in view of Redman discloses the invention as discussed above. However, Elliott in view of Redman does not disclose the following claimed limitations taught by Hagler. Hagler teaches a pressure control apparatus including a plunger 17 contained within a cylinder, an inlet check valve 24, and a deformable means 19. Hagler further teaches that the deformable element is the valve seat sealing gasket (see col. 1, lines 63-68) and that the deformable element is an elastic plate. Hagler teaches that these aspects of the invention would be advantageous because they make the pump capable of delivering a liquid under rapidly and widely varying pressure and flow.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the pump assembly of Elliott in view of Redman by making the deformable means a sealing gasket or an elastic plate, as taught by Hagler, in order to deliver a liquid under rapidly and widely varying pressure and flow (see col.1, lines 14-22).

### ***Response to Arguments***

10. Applicant's arguments with respect to claims 2-6 and 9-15 have been considered but are moot in view of the new ground(s) of rejection.

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11. In reference to the argument that Redman does not teach the delivery conduit 20 having a smaller diameter than the diameter of cylinder 19: Applicant points to the statement that “the cylinder block has only two passages each of uniform diameter”. This merely means that the passages *each have a uniform diameter throughout their length*; it does not mean that the passages have the same diameter. As clearly seen in Fig. 1 conduit 20 is noticeably narrower in diameter than 19. Therefore, Redman reads on the limitation.

### **Conclusion**

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

13. The prior art made of record in the attached form 892 and not relied upon is considered pertinent to applicant's disclosure.



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14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PETER J. BERTHEAUD whose telephone number is (571)272-3476. The examiner can normally be reached on M-F 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Kramer can be reached on (571) 272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Charles G Freay/  
Primary Examiner, Art Unit 3746

PJB  
/Peter J Bertheaud/  
Examiner, Art Unit 3746